Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

INDEX TO VOL. V.

Acad. Nat. Sci. Philada., fossils deposited with, 110, 111.
Agassiz, Prof. correspondence with Mr. Lea, 218.
Alexander, J. H., philological paper, 240: preservation of articles in corner stones, 350.
Alexander, S., on eclipse of the sun, 31.
Alkaline sulphates, decomposition of, 274.
Apparatus belonging to Society, 230.
Arctic Expeditions, 159, 224, 266, 298, 321, 329, 332, 351, 357.
Asphaltum at Hillsborough, 241; new variety of, 279.
Astor Library, 291.
Astronomical Journal, 103, 107, 109.
Aurora Borealis, 249, 342.
Award of Arbitrators between Society and W. D. Lewis, 39.

Bache, A. D., tides in Gulf of Mexico, 235.
Bache, Franklin, Discourse as President, 359.
Barometer, fluctuations of, 176.
Bettelheim, Dr., meteorological observations, 240, 249.
Boardman, H. A., rock crystal, 305.
Boyé, Dr., tea artificially coloured, 36; iron pyrites and nickel, 230; salt-radical theory, 275; fossil infusoria, 275; articles in corner stones, 323, 325; aurora borealis, 342.
Browne, P. A., trichometer, 72; fine Saxony wools, 247, 250, 259, 264.

Cabinet, exchange of specimens in, 329.
Caloric engine, 305.
Carabidæ, classification of, 321.
Coins exhibited, 195, 198; coins and medals to be arranged, 230; Parish collection of, 247, 264, 310, 313.
Comet, Klinkerfuss', 342.
Committees, standing, appointed, 5, 66, 122, 180, 243, 308.
—— of finance, report, 9, 42, 48, 119, 173, 224, 235, 264, 269, 300. 359.
—— of publication, 46, 118, 171, 233, 254, 306, 358.

Committees, special,—
—— on communication of Lieut. Gilliss, 3.
—— on paper by Dr. C. M. Wetherill, 30, 35.
—— to confer with Am. Acad. Arts and Sciences, 37, 39.
—— on U. S. Coast Survey, 50, 54, 69.
—— on portrait of Dr. Chapman, 66.
—— on communication from Dr. Jahn, 69, 72.
—— on communication from Acad. Arts and Sciences, 81, 84.
—— on longitude of Washington Observatory, by Lieut. Gilliss, 84, 87.
—— on Observatory of Alabama, by L. C. Garland, 103.
—— on W. Kahler's paper, on motion of planets, 103, 106.
—— on Franklin manuscript papers, 110, 112.
—— on Prof. Loomis' paper, on Longitude of Hudson Observatory, 142, 144, 182.
—— on M. F. Longstreth's paper, on tabular longitudes of moon, 176, 179.
—— on Dr. Leidy's paper, on genus Gregarina, of Dufour, 176, 179.
—— on Dr. Leidy's paper, on Nematoidea imperfecta, 180, 182.
—— on Dr. Bettelheim's meteorological observations, 240, 247.
—— on philological paper, by Prof. J. H. Alexander, 240, 249.

—— on communication from Lieut. Maury, 247.
—— on specimens of fine Saxony wools, 250, 257.
—— on Mr. Lea's paper, on unionidæ, &c., 253, 254.
—— on Mr. Lea's paper, on fossil footmarks, 261, 264.
—— on laws of society, 265, 306.
—— on Dr. Leidy's paper, on extinct American lion, 267, 269.
—— on Dr. Leidy's paper, on extinct dicotylinæ, 269, 272.
——on Dr. Wetherill's paper, on minerals from Reading, &c., 273, 284.
—— on Mr. Tilghman's paper, on decomposition of alkaline sulphates, 274, 279.
—— on Dr. Wetherill's paper, on a new variety of asphalt, 279, 282.
—— on Dr. Kane's Arctic expedition, 299, 305.
—— on improvements in library, 306.
—— on Dr. Leconte's paper, on classification of carabidæ, 321, 323.
—— on Dr. Leconte's paper, revision of elateridæ of U. S., 347, 350.
Corner-stones, preservation of articles in, 323, 325, 350.
Cresson J. C., telescopic gasholder, 164; temperature of congelation, 168; fluctuations of barometer, 176.
Crystalotype of moon, 312, 354.

Daguerreotypes of moon, 208, 312, 354.
Darlington, W., memorials of Bartram and Marshall, 79.
Denudation of the Pacific, 120.
Diamonds from Brazil, 33—Georgia, 106.
Disc of silver, ancient Roman, 125.
Discourse to Society, by President Bache, 359.
Donations for cabinet, 164, 167, 233, 269, 325, 345.
—— for library, *passim*.
Du Bois, W. E., gold from California, 177; coins, 198; gold from Australia, 313.

Elateridæ of U. S., 347.
Election of officers, 1, 49, 119, 175, 236, 301.
Electric current and velocity of light, 135.
Emerson, Dr., proportions of sexes, 20.

Felis atrox, 261.
Fitz, object glass, 87.
Flax, prepared, 195.
Fossil infusoria, 275.
Fraley, F., progress of Smithsonian building, 137.
Franklin manuscripts, 110, 112; papers from, 134; metal enclosed in, 143, 147.
Frazer, Prof., diamonds from Georgia, 106; transmission of sound, 118; aurora borealis, 249; death of M. Arago, 347.

Galvanic apparatus, 269.
Garland, L. C., observatory of Alabama, 103.
Gilliss, Lieut., longitude of Washington observatory, 84.
Gilpin, T., influence of moon upon weather, 117.
Gold,—in Maryland, 84; probable effects of increase, 148; in Indiana, 150; large mass, 177; in Pennsylvania, 274; from Australia, 313; on Delaware, 313.
Greene, G. W,, correspondence of Gen. Greene, 25, 72.

Haldeman, Prof., additions to paper on longicornia, 3; apparent projection of star during occultation, 16.
Hays, Dr., galvanic apparatus, 269.
Henry, Prof., radiation of heat, 108.
Historical Soc. Penn. may copy portraits, 193, 253.

Ice-drift of Baffin's bay, 284.
Ideas, communication of by electricity, 233.
"Indian walk" of 1737, 126.

Justice, Mr., exhibits spy-glass, 41; oxidation of object-glass, 69, 108; gold from Maryland, 84; parallactic telescope, 99; rise of Mississippi, 99; incrustation from wreck, 122; wheat-worm, 162; Washington half dollar, 170; wire gauze in near sightedness, 171; daguerreotypes of Moon, 208, 354; protococcus nivalis, 262; polarization, 305; crystalotype of moon, 312, 354; Klinkerfuss' comet, 342.

Kahler, W., motion of planets, 103, 106.
Kane, Dr. E. K., letter on American Arctic expedition, 159; vegetables from Arctic ice, 266; ice-drift of Baffin's bay, 284; new expedition, 321; thanks to Society, 332.
Kane, J. K., Arctic expedition, 224.

351, 357; caloric engine, 305; excused from obituary, 350.
Kendall, Prof., object-glass for telescopes, 87; occultation of Jupiter, 139.
Kirkwood's analogy, 97.

Laws of Society, amendments to, 173, 180, 193, 265, 306, 314, 317, 319, 355, 358.
Lea, Isaac, reptilian footmarks, 91, 261; unios from Ohio, 153; on communication from Prof. Agassiz, 187; naiades, 191; correspondence with Prof. Agassiz, 218; molluscs, 251; resolution, 262; letter from Thomas Penn, 358.
Leconte, J. L., classification of carabidæ, 321; revision of elateridæ, 347.
Leidy, Joseph, genus gregarina, 176; nematoidea imperfecta, 180; Felis atrox, 261; extinct American lion, 267.
Librarian elected, 5, 66, 122, 180, 243, 308.
Library, contribution of President towards improvement, 355.
Locke, Dr. J., gravity-escapement, 33; telegraphic clock, 51; new mode of recording observations, 206.
Locusts, 209.
Longstreth, M. F., tabular longitudes of moon, 176.
Loomis, E., progress of astronomical science, 48, 83; longitude of Hudson observatory, 142, 182.
LETTERS from SOCIETIES, &c. *foreign.*
Acad. des Sciences, Paris, 348.
Cambridge Ph. Soc., 151, 200, 270.
Central Commission of Statistics, Belgium, 280, 287.
Ecole des Mines, 100, 157, 245, 270, 317, 319, 332, 356.
Geographical Society, Paris, 154.
Geological Soc., London, 34, 67, 121, 157, 283, 322.
Holland Soc. Sci., Harlem, 34, 53, 203.
Horticultural Soc., Lond. 358.
Hungarian Acad. Sci., 287.
Imp. Soc. Naturalists, Moscow, 6, 13, 81, 105, 211, 255, 297, 347.
Imp. Acad. Sciences, St. Petersburg, 46.
Imp. Acad. Sciences, Vienna, 214, 255, 288, 292, 327, 352.
Leeds Phil. Society, 286, 343.
Linnean Soc., Lond., 214, 250, 358.
Lit. and Phil. Soc., Manchester, 30, 46, 109, 168, 196, 237.
Mining Engineers of Russia, 166, 216, 239, 352.
Nat. Hist. Soc., Northumberland, &c., 343.
Royal Acad. of Belgium, 44, 222.
Royal Acad. Sci., Berlin, 44, 151, 223, 327, 352.
Royal Acad. Hist., Madrid, 123.
Royal Asiatic Soc. 43, 253, 358.
Royal Bavarian Acad. Sci., 42, 248, 288, 338, 345, 352.
Royal Geog. Soc., Lond., 81, 110, 239, 318.
Royal Geol. Soc., Cornwall, 203.
Royal Institute of Netherlands, 28, 50, 100, 145, 203, 231.
Royal Institution, London, 100, 107, 136, 288, 302.
Royal Observatory, Edinburgh, 28.
Royal Saxon Soc. Sci. 352.
Royal Society, London, 13, 113, 151, 216, 255, 330.
Royal Society, Göttingen, 151, 196, 288, 348.
Royal Society, Edinburgh, 165.
Royal Soc. Sci., Copenhagen, 26, 169, 288, 324, 352.
Royal Soc. Sci., Stockholm, 39, 231, 239, 314.
Society of Antiquaries, Lond., 50, 123, 203, 239, 286, 288, 358.
Soc. North. Ant. Copenhagen, 216.
Society of Sci., &c., Lille, 280.
Statistical Soc. London, 288.
Zoological Soc. London, 6, 145, 245, 343.
LETTERS from SOCIETIES, &c., *domestic.*
Acad. Nat. Sci. Philada., 98, 111, 231.
Albany Institute, 307.
Am. Acad. Arts and Sci., 46, 81, 122, 270, 276.
Amherst College, 134.
Am. Antiquarian Soc., 12, 87, 109, 214, 314.
Boston Soc. Nat. Hist., 212.
Boston Athenæum, 184.
Bowditch Library, 24, 310.
Connecticut Hist. Soc., 151, 181, 288, 292, 310, 314, 348.
Congress Library, 276.
Franklin Institute, 70.
Hist. Soc. Penna., 178, 295, 318, 352.
Lyceum Nat. Hist. N. Y., 40, 255, 283.
New Bedford City Library, 332.
N. J. Hist. Soc., 18, 90, 113, 143, 178, 253, 276, 288, 314, 348.

N. Y. Hist. Soc., 17, 253.
Smithsonian Inst., 212, 255, 276.
Trustees N. Y. State Library, 143, 178, 280, 352.
Univ. N. Y. Regents, 13, 26, 53, 109, 214.
University, Cambridge, 90, 145, 181, 222, 263, 280, 358.
LETTERS from INDIVIDUALS.
Adams, J. C., 13.
Armstrong, E., 83.
Angelis, Don. P., 270.
Alexander, J. H., 271.
Banchero, G., 12.
Barca, C. de la, 23.
Browne, P. A., 26, 145, 245.
Bache, A. D., 28, 50, 73, 74, 83, 141, 186, 268.
Bache, F., 340, 355.
Berzelius, Baroness, 53.
Bennett, J. H., 113.
Bernhisel, J. M., 169.
Boardman, H. A., 196.
Bailey, J. W., 245.
Bond, W. C., 276.
Biddle, J. B., 327.
Conyngham, J. N. 23.
Colwell, S., 181.
Chauvenet, W., 196.
Chevalier, M., 265.
Craig, H. K., 314.
Cauchy, B. A., 322.
Crelle, A. L., 324, 343.
Crampton, J. F., 358.
Denny, Henry, 7.
Denny, Harmar, 24.
Dickerson, M., 18.
Derrick, W. S., 216.
Davis, I. R., 229.
Davis, C. H., 245.
Everett, E., 88, 297.
Eckert, G. W., 245.
Ferris, B., 171.
Farnum, J. W., 193.
Flügel, J. G., 194, 330, 348.
French, B. F., 276.
Gilliss, J. M., 7, 24, 69, 324.
Grier, R. C., 23.
Greenleaf, S., 23.
Geddings, E. 26.
Gould, B. A. jr., 45, 157, 181, 286.
Gould, A. A., 109, 216.
Gaskill, E., 164.
Graham, J. D., 176.
Grinnell, H., 327.
Grunert, J. G., 327.
Gauss, C. F., 340.
Henry, Prof., 44.
Horsford, E. N., 70.
Hanse, R., 100.
Hart, A. M., 183.
Hill, J., 183.
Hazlehurst, I., 196.
Hallowell, E., 225.
Hunter, W., 268.
Hubbard, J. S., 268.
Haidinger, W. S., 352.
Ingraham, E. D., 90.
Jarvis, E., 330.
Jones, J., 28.
Kirkbride, T. S., 181.
King, E., 245.
Kennedy, J. P., 314.
Kane, J. K., 358.
Krauss, Dr., 348.
Kupffer, A. T., 214.
Leverrier, U. J., 4.
Leidy, J., 113.
Leconte, J., 225.
Lea, I., 271, 292.
Lepsius, Prof., 280.
Law, E. E., 310.
Leconte, J. L., 310.
Lenthall, J., 338.
Morse, S. F. B., 23.
Metternich, Prince, 33.
Mutter, T. D., 196.
M'Call, P., 202.
Martinez, J. J., 234.
Meigs, J. F., 245.
Maury, M. F., 245, 292.
Michaux, F. A., 292.
Moraleda, S. 302.
Mordecai, A., 309.
Mann, A. D., 238.
Massone, G. B., 343.
Marsh, G. P., 67.
Neill, J., 271.
Ord, Geo., 338.
Peirce, Prof., 5, 15.
Picot, C., 23.
Prest. Georgetown Coll., 24.
Prescott, W. H., 123, 229.
Purgstall, Baron, 171, 307.
Pancoast, J., 196.
Patterson, R. M., 293.
Patterson, R., 196.
Patterson, T. L., 348.
Parish, Geo., 255, 310, 314.
Patton, W., 275.
Paine, M., 286.
Reed, John, 23.
Reed, W. B., 143, 314.
Reynolds, J. B., 181.
Remington, Dr., 203.
Ruschenberger, W. S. W., 109.
Reese, J. J., 271.
Rafn, C. C., 292.
Squier, E. G., 18.
Stevens, A. H., 23.
Secretary of Navy, 34, 302.
Scott, J. M., 37.
Santarem, M. de, 184.
Svanberg, J. A., 190.

Shippen, W., 200.
Sabine, Col., 229.
Smith, F. G., 245.
Stille, A., 245.
Totten, J. G., 298.
Totten, G. M., 190.
Towne, J. H., 181.
Tilt, E. J., 231.
Telsky, Count, 283.
Vaughan, P., 87.
Vega, G. L. de la, 302.
Wetherill, C. M., 181.
Ward, T., 190, 250.
Webster, D., 265.
Wilson, T. B., 268.
Zantedeschi, Prof., 136, 225.

Maryland Hist. Soc. Indian Vocabularies, 86.
Mastodon, casts presented to Acad. Nat. Sci., 264.
M'Euen, Dr., zinc by distillation, 106.
Memorial to legislature, 185.
Michaux, F. A. sealed document to Society, 292, 293.
Miller, Edward, silicate of zinc, 329.
Molybdenite, 273.
Moon, influence upon weather, 117; daguerreotype of, 208; crystalotype, 312.
Members elected:
Adams, J. C., 6.
Alaman, L., 181.
Alexander, J. H., 268.
Arfwedson, C. D., 347.
Baird, R., 6.
Barca, C. de la, 22.
Bennett, J. H., 109.
Boardman, H. A., 195.
Bailey, J. W., 244.
Bond, W. C., 268.
Bird, R. M., 309.
Biddle, J. B., 327.
Conyngham, J. N., 22.
Colwell, S., 180.
Chauvenet, W., 195.
Chevalier, M., 244.
Cassin, J., 268.
Crelle, A. L., 309.
Cauchy, A., 309.
Denny, H., 22.
Dundas, J., 224.
Davis, I. R., 224.
Davis, C. H., 244.
Dworjak, C., 347.
Eckert, G. N., 244.
Farnum, J. W., 181.
Flügel, J. G., 309.
Fisher, A. F., 347.
Gilliss, J. M., 6.
Gray, A., 6.
Grier, R. C., 22.
Greenleaf, S., 22.
Geddings, E., 22.
Goodsir, J., 109.
Gould, A. A., 109.
Gould, B. A., 181.
Gauss, C. F., 309.
Grinnell, H., 327.
Horsford, E. N., 66.
Hazlehurst, I., 195.
Hallowell, E., 224.
Hubbard, J. S., 268.
Hall, M., 337.
Ingersoll, R. J., 22.
James, J. F., 6.
Jahn, G. A., 6.
Jones, J., 22.
Kent, W., 22.
Kiernan, F., 109.
Kirkbride, T. S., 181.
Kirkwood, D., 195.
Kane, E. K., 224.
King, E., 244.
Kennedy, J. P., 309.
Longstreth, M. F., 22.
Leidy, J., 66.
Leconte, J., 224.
Leconte, J. L., 309.
Liouville, J., 309.
Law, E. E., 309.
Lynch, W. F., 309.
Morse, S. F. B., 22.
Marsh, G. P., 66.
Mütter, T. D., 195.
Morris, C., 195.
M'Call, P., 195.
Morris, J. G., 195.
Meigs, J. F., 244.
Maury, M. F., 291.
Mitchell, O. M., 309.
Mordecai, A., 309.
Neill. J., 268.
Picot, C., 22.
Pouchet, F. A., 22.
Pepper, W., 195.
Pancoast, J., 195.
Patterson, R., 195.
Patterson, T. L., 327.
Reed, J., 22.
Ruschenberger, W. S. W., 109.
Reynolds, J. B., 181.
Reese, J. J., 268.
Storrs, W. L., 22.
Stevens, A. M., 22.
Shippen, W., 195.
Sharswood, G., 224.
Smith, F. G., 244.
Stillé, A., 244.
Sakharoff, B., 347.
Strelkowsky, P., 347.
Struve, F. G. W., 347.
Towne, J. H., 180.
Totten, G. M., 181.

Wetherill, C. M., 181.
Wilson, T. B., 268.
Zantedeschi, F., 195.
Members deceased:
Adams, J. Q., 11.
Audubon, J. J., 182.
Alaman, L., 336.
Brongniart, A., 5.
Berzelius, J. J., 36.
Blainville, M., 153.
Betton, S., 153.
Brockenbrough, Dr., 279.
Carlisle, N., 15.
Chauncey, C., 103.
Crosse, J. G., 155.
Cooper, J. F., 218.
Chapman, N., 336.
Caldwell, C., 337.
Ducatel, J. T., 89.
Dobson, J., 163.
Denny, H., 247.
Drake, D., 294.
Dickerson, M., 345.
Emlen, G., 159.
Green, A., 25.
Gilmor, R., 66.
Gallatin, A., 99.
Griffith, R. E., 155.
Godoy, M., 228.
Gutzlaff, C., 234.
Griscom, J., 251.
Gilpin, T., 319.
Gibson, J. B., 329.
Greenleaf, S., 347.
Hemso, G. de, 5.
Hartshorne, J., 159.
Hembel, W., 206.
Horner, W. E., 321.
Jones, T. P., 13.
Jarvis, S. F., 191.
Louis Philippe, 159.
Lasteyrie, Count, 180.
Miller, S., 122.
Morton, S. G., 201.
Milledoler, P., 285.
Oersted, J. C., 195.
Prichard, J. C., 72.
Perkins, J., 103.
Pedersen, P., 218.
Poinsett, J. R., 238.
Picot, C., 279.
Peter, W., 317.
Randolph, J. 11.
Reed, J., 126.
Roux de Rochelle, 137.
Reynolds, J. B., 206.
Richards, B. W., 211.
Rogers, J. B., 272.
Short, W., 112.
Stuart, M., 240.
Stephens, J. L., 287.
Sergeant, J., 297.
Tidyman, P., 155.
Troost, G., 159.
Taylor, R. C., 226.
Vanuxem, L., 9.
Vaughan, W., 153.
Wheaton, H., 13.
Wylie, S. B., 287.
Webster, D., 290.
Wayne, I., 290.
Walker, S. C., 312.
Wetherill, J. P., 340.
Members surviving, list read, 5, 66, 122, 180, 243, 308.

Naiades, large, 191.
New Mexico, mineral specimens, 291, 294; potato indigenous, 291.
Nickel, in iron pyrites, 230.

Occultation of Jupiter, 139.
Ord, G., thanks of Society, 6.
Obituaries, members to write—are not committees, 350.
Obituary notices directed, of
Audubon, J. J., 182.
Chapman, N., 336.
Caldwell, C., 337, 340.
Green, A., 25.
Griffith, R. E., 155.
Gilpin, T., 321.
Horner, W. E., 321.
Morton, S. G., 201, 334.
Poinsett, J. R., 238.
Peter, W., 317.
Richards, B. W., 211.
Rogers, J. B., 279.
Short, W., 117.
Tidyman, P., 155, 340.
Vanuxem, L., 9.
Vaughan, W., 153.
Webster, D., 290.
Walker, S. C., 312, 323.
Wetherill, J. P., 340.
Obituary notices read, of
Beasley, F., by Dr. Wood, 20.
Lesueur, C. A., by Mr. Ord, 83.
Richards, B. W., by Judge Kane, 213.
Taylor, R. C., by Mr. Lea, 226.
Vanuxem, L., by Mr. Lea, 10.
Webster, D., by Dr. Boardman, 296.

Parish collection of medals, 247, 264, 310, 314.
Patterson, R. M., medal of, 218; letter to, 296.
Peale, F., exhibits coins, 195, African rings, &c., 202; medal of Dr. Patterson, 218.
Penal Reform Convention, use of Hall, 28.

Penn, Thomas, letter from, 358.
Planets Uranus and Neptune, 15, 20.
Plumbago, from Bucks county, 171.
Potassium, in iron ore, 264.
President and two members visit Europe, 322.
Protococcus nivalis, 262.
Publication fund established, 270.

Radiation of heat, 109.
Reptilian footmarks, 91.
Rittenhouse, portrait copied, 156.

Salt-radical theory, 275.
Schumacher, Prof., notice of labours ordered, 182; testimonial to, 185.
Secretary of Navy, resolution, 299.
Sound, transmission of, 118.
Spy-glass by Mertz and Son, 41.

Taylor, R. C., Hillsborough asphaltum, 241.
Telegraphic clock, 51.
———— operations of U. S. Coast Survey, 74. ——— record of observations, 206.
Telescopic gas-holder, 164.
Temperature of congelation, 168.
Tilghman, R. A., leave to publish, 6; potassium in iron ore, 264; decomposition of alkaline sulphates, 274.
Treasurer, annual report of, 46, 112, 171, 233, 358.
Trego, C. B., abstract of memoir on ancient Roman disc, 125; "Indian walk" in 1737, 126; Cicada septendecem, 209; elected treasurer, 216; minerals from New Mexico, 291, 294.
Trust funds, 270.
Tucker, Prof., probable effects of increase of gold, 148.

Unios from Ohio, 153.

Vegetables from Arctic ice, 266.

Walker, S. C., planet Neptune, 20; Telegraphic operations of coast survey, 74; Kirkwood's analogy, 97.
Washington half dollar, 170.
Wetherill, C. M., sulph. ox. ethyle, &c., 30; minerals from Reading, 273; new variety of asphalt, 279.
Wheat worm, 162.
Wire gauze in myopy, 171.
Wools from Saxony, 247, 250, 257, 264.

Zircon, 273.
Zinc, silicate of, 329.